Abstract

1. Method and apparatus for spatially resolved polarimetry.

2.1. The invention relates to a method and an apparatus for the spatially resolved polarimetric examination of an imaging beam pencil generated by an associated pulsed radiation source.

2.2. According to the invention, a first and a second photoelastic modulator and a polarization element are introduced serially into the beam path of the beam pencil. A control unit activates a first modulation oscillation of the first photoelastic modulator and a second modulation oscillation of the second photoelastic modulator and drives the radiation source for outputting a respective radiation pulse in a manner dependent on the oscillation state of the first photoelastic modulator and/or the second photoelastic modulator. A detector detects the beam pencil coming from the polarization element in a spatially resolved manner.

2.3. Use e.g. for the pupil-resolved, polarization-sensitive wavefront measurement of projection objectives for microlithography.